76

- 20. The composition of claim 1, wherein the immunostimulatory nucleic acid is formulated as a nutritional supple-
- 21. The composition of claim 20, wherein the nutritional supplement is formulated as a capsule, a pill, or a sublingual 5 tablet.
- 22. The composition of claim 1, wherein the immunostimulatory nucleic acid is formulated for local administration.
- 23. The composition of claim 1, wherein the immuno- 10 stimulatory nucleic acid is formulated for parenteral admin-
- 24. The composition of claim 1, wherein the immunostimulatory nucleic acid is formulated in a sustained release device.
- 25. The composition of claim 1, wherein the immunostimulatory nucleic acid is formulated for delivery to a mucosal surface.
- 26. The composition of claim 24, wherein the sustained release device is a microparticle.
- 27. A method for stimulating an immune response in a subject in need thereof, the method comprising
 - administering to the subject a therapeutic agent in an amount effective to stimulate an immune response, wherein the therapeutic agent is the immunostimulatory 25 nucleic acid of claim 1, and wherein the subject has or is at risk of developing a cancer.
- 28. The method of claim 27, wherein the subject has or is at risk of developing an infection.
- 29. The method of claim 27, further comprising adminis- 30 tering an antigen to the subject.
- 30. The method of claim 29, wherein the antigen is selected from the group consisting of a microbial antigen, and a cancer antigen a self antigen and 31. The method of claim 27, wherein the immune response 35
- is an antigen-specific immune response.
- 32. The method of claim 27, further comprising administering to the subject a second therapeutic agent.
- 33. The method of claim 27, wherein the immunostimulatory nucleic acid has a nucleotide backbone which includes at 40 least one backbone modification.
- 34. The method of claim 33, wherein the backbone modification is a phosphorothioate modification.
- 35. The method of claim 33, wherein the nucleotide backbone is chimeric.
- 36. The method of claim 33, wherein the nucleotide backbone is entirely modified.
- 37. The method of claim 27, wherein the immunostimulatory nucleic acid is administered orally.

- 38. The method of claim 27, wherein the immunostimulatory nucleic acid is administered locally.
- 39. The method of claim 27, wherein the immunostimulatory nucleic acid is administered parenterally.
- 40. The method of claim 27, wherein the immunostimulatory nucleic acid is administered in a sustained release device.
- 41. The method of claim 27, wherein the immunostimulatory nucleic acid is administered to a mucosal surface.
- 42. The method of claim 41, wherein the mucosal surface is selected from the group consisting of an oral, nasal, rectal, vaginal, and ocular surface.
- 43. The method of claim 27, further comprising isolating an immune cell from the subject, contacting the immune cell with an effective amount to activate the immune cell of the immunostimulatory nucleic acid and re-administering the activated immune cell to the subject.
- 44. The method of claim 27, wherein the subject is a human.
- 45. The method of claim 27, wherein the subject is selected from the group consisting of a dog, cat, horse, cow, pig, sheep, goat, chicken, monkey and fish.
- 46. The method of claim 27, wherein the cancer is selected from the group consisting of biliary tract cancer; bone cancer; brain and CNS cancer; breast cancer; cervical cancer; choriocarcinoma; colon cancer; connective tissue cancer; endometrial cancer; esophageal cancer; eye cancer; gastric cancer; Hodgkin's lymphoma; intraepithelial neoplasms; larynx cancer; lymphomas; liver cancer; lung cancer; melanoma; neuroblastomas; oral cavity cancer; ovarian cancer; pancreas cancer; prostate cancer; rectal cancer; sarcomas; skin cancer; testicular cancer; thyroid cancer; and renal cancer.
- 47. The method of claim 27, further comprising administering an antibody specific for a cell surface antigen, and wherein the immune response results in antigen dependent cellular cytotoxicity (ADCC).
- 48. A method for inducing an innate immune response, comprising administering to the subject at immunostimulatory nucleic acid of claim 1 in an amount effective for activating an innate immune response.
- 49. The composition of claim 1, wherein the immunostimulatory nucleic acid molecule is up to 100 nucleotides in length.
- 50. The method of claim 46, wherein the lung cancer is 45 small cell lung cancer.
 - 51. The method of claim 46, wherein the lung cancer is non-small cell lung cancer.